

IN THE CLAIMS:

Please substitute amended claims 1-8 as follows:

- a10 1. (Amended) A rotor for a high speed permanent magnet motor comprising:
- a central spindle,
  - a plurality of magnet discs stacked on said spindle,
  - 5 a clamping device provided on said spindle for exerting an axial clamping force on said magnet discs, thereby forming an axially pre-tensioned disc packet, and
  - a reinforcement disc of a non-magnetic high-strength material provided at least one of (i) between at least every
  - 10 second magnetic disc, and (ii) between at least one of said magnetic discs and said clamping device,
- wherein the reinforcement discs have substantially a same outer dimension as the magnet discs, and
- wherein each reinforcement disc is clamped by said axial
- 15 clamping force between said at least every second magnet disc or between said at least one magnet disc and said clamping device, thereby accomplishing a frictional engagement between said reinforcement discs and said magnet discs for transferring centrifugal forces from said magnet discs to said reinforcement
- 20 discs, and thereby relieving said magnet discs of tensile stress.

2. (Amended) A rotor according to claim 1, wherein one said reinforcement disc is located between every two adjacent magnet discs.

3. (Amended) A rotor according to claim 1 or 2, wherein each one of said magnet discs comprises at least one electrically insulating layer.

4. (Amended) A rotor according to claim 1, wherein said reinforcement discs are flat in shape.

5. (Amended) A rotor according to claim 1, wherein said reinforcement discs comprise a high-strength metal.

6. (Amended) A rotor according to claim 1, wherein said reinforcement discs comprise a ceramic material.

7. (Amended) A rotor comprising:  
a central spindle,  
a plurality of magnet discs stacked on said spindle,  
a clamping device provided on said spindle for exerting an  
axial clamping force on said magnet discs, thereby forming an  
axially pre-tensioned disc packet, and  
a reinforcement disc of a non-magnetic high-strength  
material provided at least one of (i) between at least every

second magnetic disc, and (ii) between at least one of said  
magnetic discs and said clamping device,

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amended.  
wherein each reinforcement disc is clamped by said axial  
clamping force between said at least every second magnet disc or  
between said at least one magnet disc and said clamping device,  
thereby accomplishing a frictional engagement between said  
15 reinforcement discs and said magnet discs for transferring  
centrifugal forces from said magnet discs to said reinforcement  
discs, and thereby relieving said magnet discs of tensile stress,

wherein said magnet discs are radially pre-tensioned by a  
pre-assembly heat treatment of said reinforcement discs.

8. (Amended) A rotor according to claim 7, wherein a  
thermal coefficient of expansion of the reinforcement discs is  
higher than a thermal coefficient of expansion of the magnet  
discs, and said heat treatment comprises heating the rotor  
5 assembly before applying said axial clamping force.